



## **Specification Amendments**

[0002] Traditionally, when a firm or business desires to have a part made for them by a supplier, they would provide a number of potential suppliers with a disclosure of the part and other relevant information and ask them to submit a quote. However, a quoting process such as this merely provides prices at which the suppliers wish to sell the part and there is no rational basis to assume that the quoted price is based upon what the cost to produce the part is or, for that matter, is the price competitive. Under the traditional quoting process, three quotes were obtained and the lowest quote was accepted. Under more Informed systems, the lowest quote becomes the price from which a final price is negotiated. Regardless of what followed the submission of quotes, there is no guarantee that the final price is based upon what the cost to manufacture the part "ought to be." Even if the supplier provides data explaining how the quoted price was arrived at, there is no assurance that the data is accurate. Furthermore, there is no assurance that the best design, manufacturing practices, supply chain management techniques, labor rates, uptimes and yields will be employed to produce the part. Most buyers, and most sellers for that matter, do not know what the "lowest possible cost" is for the product they are buying (or selling), (or selling).

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[0112] Rather than using the Oughta Cost Search feature an operator could scan through the entire list of Existing Studies that is available in the Existing Oughta Cost Studies section seen in Figure 2. For each of the Existing Studies the following information is displayed in columns in this screen: Program #, Description, Status and Owner. As each new study is initiated it is assigned a Program # and the operator will be prompted to provide a descriptive name for the study. As Studies are developed they will be assigned a status. For example a Study that is classified as Public may be viewed and printed out by anyone on the system, however unless the individual is on an authorized list they would not be permitted to maintain or make changes to the Study. Only development team members designated by the owner are allowed o allowed to maintain a study. Other Studies may include confidential information that it is important to limit its disclosure to a certain group







of individuals. Such a Study would be classified as Private and access for any purpose to a Private Study is limited to a certain group of individuals. The owner of a particular could be for example the person that was named to coordinate and "Champion" the process or the study or it could be a group or division within the enterprise that controls this collection of Studies. The columns could be sorted which could for example place all Studies having the same Owner together.

[0115] The Material screen, as seen in Figure 3, includes a Material Table at the bottom of the screen. As seen in Figure 4, as a result of selecting Steel Forging in Figure 3, information [[will]] automatically populates the Material Table section. This information informs the operator that the unit of measure for a unit of this material is tons and the category of this material is a Steel Forging. Also seen in Figure 4 the drop down menu for Supplier Scrap has been opened. The drop down menu containing a variety of percentages. The drop down menus generally include a default selection which is the figure for the Best in Class for subject of the drop down menu. The operator has the option to accept the default best in class supplier scrap rate or select another percentage, assuming there is a basis for doing so. The operator has selected 5.00% by clicking on it. This selection, which is the "best in class" default percent was made after examining the actual part, model or



[0119] In the Freight section of the Material screen seen in Figure 7, in the box for "Dunnage" the letter "Y" (for yes) has been imputed. Either Retiurnable Returnable Containers or Dunnage must be picked to complete the material section. If "Returnable Containers" is chosen, additional labor data must be provided on the labor screen to capture the costs associated with manaing managing the containers. If "Dunnage" is chosen then the additional labor will not be displayed.



[0121] Figure 7 shows the Material screen completed and it is now saved to the database. If the part includes other components, for example, a housing, a fresh Material screen would be selected and an alpha suffix, or any other suffix, would be added to the original component number that was assigned. The above process

drawing as well as the cost per unit.







would [[than]] then be completed for this component. When the material screens for all of the components have been completed and saved in the database, another set of screens is initiated.

[0125] The Labor screen seen in Figure 8 also includes sections for DIRECT Labor and INDIRECT Labor. These sections include fields such as Default Labor Rate and Employee Benefit as both a percent of the Labor Rate and as a dollar figure. For data such as this drop down menus may not be practical and the data must be entered by the operator. However, defaults values as well as the best in class default rates for direct, indirect and skill trades labor will be provided in the data base and displayed to the operator. [[.]] Modifications can be made to all defaults and new defaults figures added to the program if desired. When it becomes necessary to track and keep separate multi-tler labor cost, a button is provided that when selected, assigns a suffix to the control number for each tier. The type of part or process being processed helps in the determination of which labor rate is used, i.e., used, e.g., if it is an engineered highly technical part with tight tolerances, then machine operators with greater skills and higher labor rates are designated. The Labor Screen allows adds, changes and deletes so that it can more accurately reflect the current world class numbers, mixes and associated labor rates of the employees. For example, 3 Machine Operators has been inputted.



[0127] A completed Capital Screen is shown in Figure 9. The system will supply the Program Number while other items are key entered utilizing best practice process or processes and most suitable location or locations. This screen allows the manual input of individual capital items required to manufacture each component selected however selected. However, it is contemplated that a database will be provided that would provide best in class data for items such as cost of different types of equipment, square-foot cost of green field plant construction by region and cost of furnishings. The system uses the capital items in this section to calculate depreciation that appears in the Overhead screen which will be discussed in a subsequent portion of the specification. Capital can be modified at any time if it is determined that additions and/or deletions are required, required. The Capital



Screen has sections for General Capital and Machining Capital. In the General Capital section, dollar amounts have been inputted for Building Expansion, Furniture and a PC. In the Machining Capital, dollar amounts have been inputted for Rough Cut, Drill and Final Cut.

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[0128] The Manufacturing section is separated into three areas: general, Available Manufacturing Time and Manufacturing Time Elements. The <u>Manufacturing</u> Screen for the Shaft is shown in Figure 10, the Manufacturing Category of "Transfer Line" has been entered and the drop down menu for Uptime Current %has been % has been opened. Since this field assumes that there is an existing process, this field will not be applicable in some situations—i.e. situations, e.g., new parts, new plants, new processes. As seen in Figure 11, which is another view of the Manufacturing screen, the operator has selected 50% from the Uptime Current drop down menu and the drop down menu for the Uptime World Class has been opened.



**[0134]** Figure 16 is another view of the Overhead screen in which the drop down menu for the first Cost Category has been opened. This menu has the following options: Pershable Perishable Tooling, Maintenance, Repair, and Operating Supplies (MRO), General Overhead, Energy and Other. This screen is now completed and will be saved in the database.